Online Appendix

to the paper

Inclusive Conflict? Competitive Clientelism and the Rise of Political Violence

This document presents descriptive statistics and additional models for robustness and endogeneity tests that could not be included in the text due to space constraints.

In this article, we have emphasized that African states generally practice inclusive representation today. Figure A1 demonstrates this by visualizing the distribution of *Representation* scores by year in 15 African countries. For each year, the box contains the interquartile range of *Representation*, while the whiskers indicate 1.5 times the interquartile range above and below the 75th and 25th percentiles. The points outside the ends of the whiskers are outliers. This figure reveals that most African states had inclusive cabinets throughout the sampling period (1997-2016), while showing a steadily increasing trend in median representation levels. Moreover, the variance of *Representation* across countries has decreased over time.

Models 5-8 in Table A1 are robustness checks of our main findings in Table 2. We test the robustness of models 1-4 to the inclusion of lagged dependent variable and additional controls, *Election* and *Group Equality*. The *Election* dummy variable indicates a 3-month period before, during and after the presidential election. The *Group Equality* variable, which provides an additional control for group-level (ethnic) inequality, is the V-Dem’s five-point scale (v2peasjsoc) that measures the degree to which state jobs are “equally open” to qualified individuals regardless of social group.[[1]](#footnote-1) We also include a lagged dependent variable to adjust for autocorrelation within clusters. In model 7, the *Malapportionment* variable loses some of its impact and is now significant at the *p*=0.065 level. Otherwise, our main explanatory variables retain their effect. In addition, we find that presidential *Election* has positive impact on violence among non-state actors, while higher levels of *Group Equality* decrease the risk of both types of violence.

In models 9-12 in Table A2, we repeat all the analyses in Table 2 using an unconditional negative binomial model with dummy variables for country and year. In model 9, we find that cabinet *Malapportionment* is a significant and strong predictor of violence against the state. On the other hand, the impact of ethnic *Representation* on anti-state violence remains insignificant with an unexpected positive sign. These results confirm the robustness of H2a. In model 10, the coefficient on *Majority Under* is positive and highly significant, although other conditions of malapportionment fail to reach statistical significance. This suggests that the presence of ‘underrepresented’ majority group in cabinet creates the most fertile ground for competing elites to challenge the state, in line with H2a. In model 11, the *Malapportionment* variable retains the same impact on violence between non-state groups, but is now marginally significant at the *p*=0.057 level. In model 12, we do not detect any major differences in the effect of our explanatory variables: *Majority Under*, *Large Under*, and *Very Small Over* remain positive and significant. Overall, these findings provide additional support for H2b: The inequality of power between included groups, rather than ethnic exclusion, generates violent competition between non-state actors.

Next, we perform several tests of endogeneity to examine whether past occurrences of violent events affect representation and malapportionment levels in the present month. For this test, we use *Representation*, *Malapportionment*, *Majority Under* and *Small Over* as dependent variables, while using lagged values (up to three lags) of anti-state violence and violence among non-state armed groups as independent variables. We include the same control variables and fixed effects as in Table 2. Models 13-20 in Table A3 reports the results of endogeneity tests based on ordinary least squares (OLS). We find no significant evidence that present values of representation and/or malapportionment are influenced by past conflict events. None of the lagged values of conflict event achieved statistical significance at the 0.05 level. These findings partly alleviate the endogeneity concern because cabinet composition does not appear to be caused by previous conflict events, at least in the short term.



Figure A1: Distribution of *Representation* scores by year, 1997-2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (5) | (6) | (7) | (8) |
| Variables | *Non-state actors vs. Government* | | *Violence among non-state actors* | |
| Representationt-1 | 0.289 |  | -0.601 |  |
|  | (0.941) |  | (0.511) |  |
| Malapportionmentt-1 | 3.253 |  | 1.650 |  |
|  | (1.241)\*\*\* |  | (0.893)\* |  |
| Majority Under t-1 |  | 1.113 |  | 0.882 |
|  |  | (0.228)\*\*\* |  | (0.294)\*\*\* |
| Large Under t-1 |  | 0.498 |  | 0.457 |
|  |  | (0.250)\*\* |  | (0.125)\*\*\* |
| Small Over t-1 |  | 0.644 |  | -0.159 |
|  |  | (0.277)\*\* |  | (0.269) |
| Very Small Over t-1 |  | -0.027 |  | 0.896 |
|  |  | (0.208) |  | (0.450)\*\* |
| Cabinet Size | 0.006 | 0.015 | -0.008 | -0.012 |
|  | (0.014) | (0.014) | (0.016) | (0.014) |
| Ethnicities in Cabinet | -0.132 | -0.096 | 0.014 | -0.009 |
|  | (0.055)\*\* | (0.052)\* | (0.046) | (0.043) |
| Democracy | -2.968 | -3.255 | -4.800 | -4.570 |
|  | (1.664)\* | (1.814)\* | (1.277)\*\*\* | (1.143)\*\*\* |
| Log(GDP per capita) | 0.247 | 0.312 | -0.338 | -0.371 |
|  | (0.439) | (0.445) | (0.386) | (0.378) |
| Election | 0.029 | 0.075 | 0.551 | 0.575 |
|  | (0.119) | (0.121) | (0.282)\* | (0.274)\*\* |
| Group Equality | -1.047 | -1.179 | -0.470 | -0.388 |
|  | (0.267)\*\*\* | (0.234)\*\*\* | (0.221)\*\* | (0.174)\*\* |
| Lagged DV | 0.034 | 0.033 | 0.051 | 0.049 |
|  | (0.008)\*\*\* | (0.007)\*\*\* | (0.010)\*\*\* | (0.009)\*\*\* |
| Country fixed effects | yes | yes | yes | yes |
| Year fixed effects | yes | yes | yes | yes |
|  |  |  |  |  |
| Log likelihood | -8,893.54 | -8,818.54 | -4,732.98 | -4,678.38 |
| Number of countries | 15 | 15 | 15 | 15 |
| Number of observations | 3,409 | 3,409 | 3,409 | 3,409 |

Table A1:Additional Controls + Lagged Dependent Variable

Robust standard errors clustered on country in parentheses.

\* *p* < .1; \*\* *p* < .05; \*\*\* *p* < .01 (two-tailed tests)

Table A2:Impact of Representation and Malapportionment on African Political Violence, using unconditional negative binomial regression

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (9) | (10) | (11) | (12) |
| Variables | *Non-state actors vs. Government* | | *Violence among non-state actors* | |
| Representationt-1 | 0.980 |  | -0.114 |  |
|  | (1.895) |  | (0.851) |  |
| Malapportionmentt-1 | 5.035 |  | 2.669 |  |
|  | (1.908)\*\*\* |  | (1.402)\* |  |
| Majority Under t-1 |  | 1.993 |  | 1.186 |
|  |  | (0.555)\*\*\* |  | (0.343)\*\*\* |
| Large Under t-1 |  | 0.452 |  | 0.655 |
|  |  | (0.404) |  | (0.165)\*\*\* |
| Small Over t-1 |  | 0.351 |  | -0.149 |
|  |  | (0.332) |  | (0.269) |
| Very Small Over t-1 |  | 0.121 |  | 0.862 |
|  |  | (0.394) |  | (0.354)\*\* |
| Cabinet Size | 0.032 | 0.032 | -0.014 | -0.016 |
|  | (0.024) | (0.023) | (0.022) | (0.019) |
| Ethnicities in Cabinet | -0.222 | -0.197 | -0.049 | -0.089 |
|  | (0.068)\*\*\* | (0.079)\*\* | (0.053) | (0.051)\* |
| Democracy | -7.159 | -7.562 | -7.425 | -7.207 |
|  | (2.195)\*\*\* | (2.320)\*\*\* | (2.398)\*\*\* | (2.097)\*\*\* |
| Log(GDP per capita) | 0.757 | 0.794 | -0.890 | -0.923 |
|  | (0.670) | (0.687) | (0.634) | (0.618) |
| Country fixed effects | yes | yes | yes | yes |
| Year fixed effects | yes | yes | yes | yes |
| Constant | -2.679 | -1.186 | 7.687 | 7.514 |
|  | (4.360) | (4.286) | (4.679) | (4.657) |
|  |  |  |  |  |
| Log likelihood | -5950.99 | -5969.89 | -3671.17 | -3653.32 |
| Number of countries | 15 | 15 | 15 | 15 |
| Number of observations | 3,409 | 3,409 | 3,409 | 3,409 |

Robust standard errors clustered on country in parentheses.

\* *p* < .1; \*\* *p* < .05; \*\*\* *p* < .01 (two-tailed tests)

Table A3:Endogeneity Tests

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
| Variables | *Representation t* | | *Malapportionment t* | | *Majority Under t* | | *Small Over t* | |
| Non-state vs. Governmentt-1 | 0.000 |  | 0.000 |  | 0.000 |  | 0.002 |  |
|  | (0.000) |  | (0.000) |  | (0.000) |  | (0.001)\* |  |
| Non-state vs. Governmentt-2 | 0.000 |  | 0.000 |  | 0.000 |  | 0.002 |  |
|  | (0.000) |  | (0.000) |  | (0.000) |  | (0.001) |  |
| Non-state vs. Governmentt-3 | -0.000 |  | 0.000 |  | 0.000 |  | 0.001 |  |
|  | (0.000) |  | (0.000) |  | (0.000) |  | (0.001) |  |
| Non-state vs. Non-statet-1 |  | 0.000 |  | 0.001 |  | 0.000 |  | -0.000 |
|  |  | (0.000) |  | (0.001) |  | (0.000) |  | (0.003) |
| Non-state vs. Non-statet-2 |  | -0.000 |  | -0.000 |  | 0.000 |  | 0.000 |
|  |  | (0.001) |  | (0.000) |  | (0.000) |  | (0.002) |
| Non-state vs. Non-statet-3 |  | -0.000 |  | 0.000 |  | 0.000 |  | 0.001 |
|  |  | (0.001) |  | (0.000) |  | (0.000) |  | (0.002) |
| Cabinet Size | 0.003 | 0.003 | -0.001 | -0.001 | 0.000 | 0.000 | -0.004 | -0.004 |
|  | (0.001)\*\* | (0.001)\*\* | (0.002) | (0.002) | (0.000) | (0.000) | (0.006) | (0.006) |
| Ethnicities in Cabinet | 0.030 | 0.030 | 0.002 | 0.001 | 0.000 | -0.000 | -0.023 | -0.027 |
|  | (0.006)\*\*\* | (0.006)\*\*\* | (0.004) | (0.004) | (0.000) | (0.001) | (0.010)\*\* | (0.010)\*\* |
| Democracy | 0.124 | 0.118 | -0.088 | -0.087 | 0.023 | 0.023 | 0.002 | -0.018 |
|  | (0.071) | (0.066)\* | (0.057) | (0.060) | (0.023) | (0.024) | (0.455) | (0.439) |
| Log(GDP per capita) | 0.036 | 0.038 | 0.001 | 0.004 | 0.003 | 0.005 | 0.033 | 0.051 |
|  | (0.022) | (0.020)\* | (0.018) | (0.018) | (0.004) | (0.005) | (0.076) | (0.080) |
| Country & Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | 0.244 | 0.240 | 0.280 | 0.269 | 0.034 | 0.026 | 0.449 | 0.392 |
|  | (0.147) | (0.136)\* | (0.120)\*\* | (0.121)\*\* | (0.035) | (0.043) | (0.511) | (0.518) |
| Number of Countries | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Number of Observations | 3,379 | 3,379 | 3,379 | 3,379 | 3,379 | 3,379 | 3,379 | 3,379 |

Robust standard errors clustered on country in parentheses.

\* *p* < .1; \*\* *p* < .05; \*\*\* *p* < .01 (two-tailed tests)

1. Michael Coppedge, John Gerring, Staffan I. Lindberg, Svend-Erik Skaaning and Jan Teorell, ‘Varieties of Democracy: Comparisons and Contrasts’, in the Varieties of Democracy (V-Dem) Project (2015). [↑](#footnote-ref-1)